

4121-168
FINAL

In the Claims

Please amend claims 2, 3, 5-8, 12, 15 and 16 as set out in the following listing of claims 1-19 in the application:

1. (Previously presented) A method of increasing the content of one or more transgene-coded biomolecules in an organism, the method comprising changing the distribution of ATP and/or ADP in cells of the organism.
2. (Currently amended) The method according to claim ~~1~~12, wherein the expression of the transgene-coded biomolecules is constitutive or is regulated temporally, locally or inducibly.
3. (Currently amended) The method according to claim ~~1~~12, wherein several transgene-coded biomolecules are expressed in parallel or sequentially.
4. (Previously presented) The method according to claim 1, wherein the organism is a plant or an animal.
5. (Currently amended) The method according to claim ~~4~~12, wherein the plant comprises gramineae, chenopodiaceae, leguminouseae, brassicaceae, solanaceae, fungi, mosses, and algae.
6. (Currently amended) The method according to claim ~~4~~12, wherein the plant comprises wheat, barley, rice, corn, sugar beets, sugarcane, rape, mustard, oilseed rape, flax, safflower, peas, beans, lupins, tobacco, lucerne, soya, bananas, ananas, potatoes, sunflowers, melons, sweet potatoes, spelt, alfalfa, paprika, topinambur, tomatoes, durum wheat, rye or batata.
7. (Currently amended) The method according to claim ~~4~~12, wherein the transgene encodes a peptide, protein or a nucleic acid.
8. (Currently amended) The method according to claim ~~7~~12, wherein the transgene codes for antibodies, aptamers, receptors, enzymes, growth factors, hormones, specific antigen and/or

4121-168
FINAL

antibody molecules, interferons, immunoglobulins, growth hormones, insulin, collagen, plasminogen activator, blood factors such as factors I to XII, histocompatibility antigens, enzymes, tumor marker proteins and/or viral proteins, ribozymes, single-stranded or double-stranded DNA or RNA.

9. (Previously presented) The method according to claim 1, wherein the activity or concentration of a protein involved in the subcellular distribution of ATP and/or ADP is increased or reduced in the organism.

10. (Previously presented) The method according to claim 1, wherein the expression of a gene which codes for a protein involved in the subcellular distribution of ATP and/or ADP is increased or decreased in the organism.

11. (Original) The method according to claim 10, characterized in that the expression is constitutive or regulated temporally, locally or inducibly.

12. (Currently amended) ~~The method according to claim 10, characterized in that~~ A method of increasing the content of one or more transgene-coded biomolecules in a plant, the method comprising changing the distribution of ATP and/or ADP in cells of the plant, wherein the expression of the plastidial an ATP/ADP transporter is increased or decreased.

13. (Previously presented) The method according to claim 4, wherein the transgene encodes a peptide, protein or a nucleic acid.

14. (Previously presented) The method according to claim 8, wherein the activity or concentration of a protein involved in the subcellular distribution of ATP and/or ADP is increased or reduced in the organism.

15. (Previously presented) The method according to claim 11, wherein the expression of the ~~plastidial~~ ATP/ADP transporter is increased or decreased.

16. (Currently Amended) A method of modifying distribution of ATP and/or ADP in cells of an organism to modify expression of a transgene, the method comprising:

4121-168
FINAL

introducing a first expression construct into the host organism, wherein the expression construct comprises a sense gene for plastidial ATP/ADP transporter protein;

culturing the organism under conditions suitable for the expression of the plastidial ATP/ADP transporter protein thereby producing a transgenic organism with a modified distribution of ATP and/or ADP; and

introducing a second expression construct comprising a transgene encoding a target protein into the transgenic organism, wherein the modified distribution of ATP and/or ADP in the transgenic organism increases or decreases the expression of the target protein.

17. (Previously presented) The method according to claim 16, wherein the organism is a plant selected from the group consisting of gramineae, chenopodiaceae, leguminosae, brassicaceae, solanaceae, fungi, mosses, and algae.

18. (Previously presented) The method according to claim 17, wherein the plant comprises wheat, barley, rice, corn, sugar beets, sugarcane, rape, mustard, oilseed rape, flax, safflower, peas, beans, lupins, tobacco, lucerne, soya, bananas, ananas, potatoes, sunflowers, melons, sweet potatoes, spelt, alfalfa, paprika, topinambur, tomatoes, durum wheat, rye or batata.

19. (Previously presented) The method according to claim 16 wherein the transgene encodes a peptide, protein or a nucleic acid.